



Air Freight

Summary

- Air freight underpins the competitiveness of key UK industries such as technology, business services and pharmaceuticals
- Air services move only high value or time sensitive products
- Goods moved by air freight account for less than one per cent of UK international trade by weight but a quarter of movements when measured by value
- Air freight makes it possible for farmers in the developing world to trade with the UK – often with lower total carbon footprints
- Air freight is a global market and it is impossible to change the industry acting on a purely national basis

Introduction

Air freight is a vital service for the UK economy but is responsible for notable levels of pollution. It helps keep the UK viable as an international centre of business, yet on a per-tonne-km basis it is a carbon intensive method of freight transport.

There is a genuine need to address the social and environmental impacts of air freight. However, FTA believes that the current debates over the merits of this service are being done with limited knowledge. There are reasons why air freight is needed, and why it operates the way it does.

Economic role of air freight in the UK

Air freight services are a key ingredient in the UK economy. The availability of these services allows the UK to function as an international centre of business and high value manufacturing.

Clearly the aviation industry itself contributes a lot through employment and regeneration. However, this is not why such services really matter to the UK. It is the wider range of businesses that these services allow and encourage that are the real importance of the industry.

Business in sectors such as technology, financial services, pharmaceuticals or business services increasingly require high speed delivery services to ensure they can respond to customers' needs. If these services are not available here they will relocate to countries where they are.

Air transport is not used for most freight. Indeed, the volumes are actually very small. Air freight accounts for only 0.5 per cent of the UK's international goods movements by weight – sea

Key facts from OEF (Oxford Economic Forecasting) report on economic impacts of aviation

- The aviation industry directly contributed £11.4 billion to UK GDP in 2004 and employed 186,000 people
- Over 520,000 jobs in the UK in total depend on the aviation industry
- Air services are particularly important for UK trade with fast-growing emerging economies, such as China, and for trade in high value goods and services
- Air services are also very important for the growth sectors on which the UK's future economic success will depend, such as high-tech companies and financial and business services
- Air services help to improve the competitiveness of almost all aspects of companies' operations, including sales, logistics and inventory management, production and customer support
- A quarter of companies report that access to air services is important in determining where they locate their operations in the UK

freight (95 per cent) and the Channel Tunnel (4.5 per cent) account for the rest¹.

However, the importance of air freight is shown by the fact that when freight is measured by value, 25 per cent of the UK's international goods movements are made by air. For products

such as manufacturing exports beyond the EU, this raises to 55 per cent². It is valuable or perishable commodities that have to be moved by air.

This is what accounts for the economic importance of air freight services to the UK.

No company wants to use air freight for the sake of it – it is far more expensive to send products by air than by sea. Those that do use air freight services do so because they have to; to enable them to provide a service at all or to stay competitive with those around the world in the same marketplace. For an island nation, air freight services will always be even more important to us than to some of our continental neighbours.

Air freight – how the industry works

Which products fly, and why?

The users of air freight services are those with high value goods that need to be transported in small quantities (ie individual packages to meet customers' needs) or perishable goods, such as food or medicine, that would not be able to survive the time taken for a sea freight voyage.

The main industry sectors using express operations (next day delivery services which rely on air freight) in the UK include: electronics and telecoms; vehicles and auto parts; engineering; information technology; pharmaceuticals, biotech and health; business services; and in fact Government. For these industries, air freight provides the level of flexibility, speed of delivery and security that are required for smaller, high value products.

The users of larger scale air freight, where it is needed because of time constraints, are food manufacturers from areas such as Africa. Air freight enables them to trade with the UK, aiding economic growth in the developing world.

How does air freight operate?

Around 60 per cent of air freight travels in the hold of passenger planes³, so it travels at the same time as passenger flights do. The remainder is carried on specialist freight services, which includes express carriers. These often need to leave at specific

times of day to make international connections – this is how the UK remains linked into global express service networks. Freight services are often pushed to more unsociable hours due to the demand for passenger flights at more traveller friendly times. Express services need to operate at such times to fit with customer need – eg end of business day collections, delivery by start of day.

Which UK airports are the key ones for freight?

Heathrow is, and will continue to be, the UK's most important centre of air freight. Indeed, Heathrow handles about as much freight as all the other airports in the UK put together. Its location, close to the UK economic centre, London and its connection to global passenger flight networks means that it is the only UK airport that can fulfil this role. However, airports such as Stansted and Nottingham East Midlands are key freight airports that give over a much higher part of their operations to freight services. Belfast and Scottish airports such as Edinburgh and Prestwick also offer substantial services and are crucial for those locations. These latter airports are expected to see the greatest percentage growth in freight services in the future – though Heathrow will continue to predominate.

What is the use of continental airports for freight?

Continental Europe's major freight airports are Amsterdam Schiphol, Paris CDG and Frankfurt International. It should be noted that these, and other substantial freight airports, are located relatively close to London and the South-East of England. If UK air freight or airports are competitively disadvantaged against these airports, one option for operators will be to switch air services to these sites, and then truck the goods into the UK. This would increase costs as well as the carbon footprint of such deliveries. Some airports in this area are already marketing themselves on this basis, anticipating future UK problems.

Passenger and freight services – the relationship

The main users of air transport in the UK are passenger services. Only around four per cent of UK flights are freight services. Even including the freight carried in the belly hold of passenger planes (which is most air freight), freight is only responsible for around 10 per cent of the total weight carried by all air transport services in the UK each year⁴.



² OEF Report on Economic Contribution of Aviation

³ Source: CAA

⁴ FTA estimates based on CAA figures: passenger numbers and freight tonnes

Key issues to consider

Environmental impacts

Air freight accounts for around 0.6 per cent of UK carbon dioxide emissions⁵. To put that in context, it is lower than emissions from off-road vehicles and other machinery used in farming and forestry⁶. Compared to the big contributors like public electricity and heat production (which contributed over 30 per cent of such emissions⁷) it is obviously a small proportion.

Aircraft fuel efficiency has also more than doubled in the last 40 years. Looking forward, the target for new aircraft in 2020 is for a further 50 per cent improvement on the 2000 level.⁸

This does not mean we should ignore the climate change impacts of aviation. These impacts can be magnified due to the emissions being released at high altitudes. However, across the UK economy we need to decide upon the appropriate policy measures that will most improve climate change performance, whilst least disrupting economic performance.

The developing world

One area where air freight is particularly vital is in facilitating trade with the developing world – especially Africa. Air freight allows areas such as this to trade in fresh produce, such as food or flowers with Europe – a key area of the economy for many African nations. For example, the export of fresh fruit and vegetables to the UK alone contributes almost £35m per year to the economy of Kenya – 95 per cent of these products have to be sent by air. The distances involved usually make it impossible to serve these markets by sea freight due to the extra time that would

take. Overall, more than one million African rural livelihoods are supported by UK consumption of their fruit and veg.⁹

Whilst aviation has a substantial carbon footprint, such products grown naturally in hot conditions in Africa, can have a lower overall impact on the environment due to the fact they do not need to use artificial heating, as some European based operations use.

These positive social impacts should be taken into account whenever considering the role of air freight in our economy.

Noise

“Modern aircraft are typically 20 decibels quieter than their predecessors in the 1960s and 1970s. This represents a reduction in perceived noise of around 75 per cent...”

DfT consultation paper on Heathrow expansion

Noise from aircraft taking off and landing is a constant problem for local residents around airports. As with the rest of the aviation industry, air freight operators are committed to reducing the amount of noise their planes make over time. The EU Commission-sponsored Advisory Council for Aeronautics Research in Europe (ACARE) has established a target of a 50 per cent reduction in noise by 2020. UK aerospace manufacturers have invested heavily to drive progress towards meeting this target.

All new aircraft in the UK have had to comply with the International Civil Aviation Organisation's (ICAO) tougher 'Chapter 4' standard since 2006, which alone reduced noise level per plane by 10 decibels.



CASE STUDY Medical services

“As a market-leading manufacturer and supplier of short-lived perishable pharmaceutical products that help in the treatment of cancer, we rely on air freight to service our customers in more than 150 countries. Most of our products are time-sensitive and many temperature-sensitive, meaning we have to move them from point of manufacture to hospitals around the world for patient treatments in the minimum timeframe. Air freight is the only option available to us.

We send 1,000 plus shipments per month by commercial air freight together with an additional 600 plus consignments per month via the integrators' networks. Reliability and speed are the two key factors in our distribution operation prompting us to use direct flights whenever possible rather than transshipping via European carriers' hubs. The two main UK airlines don't carry our products so our reliance on overseas carriers is significant. A disproportionate increase in infrastructure and operating costs in the UK could drive foreign operators to switch their schedules to mainland Europe rather than the UK. This would significantly damage our distribution operations in the same way the lack of slots for freighters at Heathrow already restricts our choice.

Similarly we are also reliant on the integrators' overnight networks to meet our customers' demands for next-day deliveries in Europe. Any restrictions on night flights that impact the integrators' operations would adversely affect our ability to service our customers' demands.”

FTA member

5 Source: FTA estimate based on BATA figures

6 Source: DEFRA e-Digest Climate Change Statistics

7 Ibid

8 Source: BATA Sustainable Aviation Factsheet

9 Source: International Institute for Environment and Development

FTA's assessment: public policy measures and air freight

Don't restrict airport development

Restricting airport growth is an economically inefficient way to reduce the environmental impact of aviation – delays and congestion benefit nobody.

Don't act alone

Aviation is a global business and decisions about issues such as the use of air freight or the use of more environmentally-friendly planes are made on a global basis. UK action alone will only result in the UK being disadvantaged. Measures taken should at least be regional – for example across the EU.

Focus on improving environmental performance

Schemes which focus directly on the environmental impact of individual planes will have the most effect for the least economic cost. They will incentivise the use of more environmentally friendly aircraft.

Allow aviation to work with other industries

Aviation is just about the hardest area to improve environmental performance. If something has to fly there are no alternatives currently to kerosene-based aircraft. Through a mechanism such as the emissions trading scheme, aviation should be enabled to help reduce total carbon emissions in the most effective way.

Provide high quality links to Europe

Higher quality road connections and rail freight services between the South-East of England and the major conurbations of North-West continental Europe might reduce the need for some shorter distance intra-EU air freight services.



CASE STUDY Hi-tech industries

"In a high technology environment, most manufacturers have to use air freight because product life cycles are too short. Sea freight from the Far East can account for 10–20 per cent of a high tech products' sales life. It is also a fact that processor chips for leading edge products will always be a challenge. It is therefore vital that the fastest route to market is used for both high cost parts and finished goods. Failure to use air freight would cost high tech companies their market position and a high percentage of their production.

Air freight is the only way that high tech companies can compete with low labour cost environments. As most parts come from Asia Pacific, they must be in European products quickly. Manufacturers have to be quick to upgrade, adapt and change products to market swings if they are to compete with volume Asian suppliers.

Companies will always find the way to market if they want to survive. That means if they have to truck goods from continental European airports to their UK customers, they will. So it is vital that the UK keeps the centre position with air freight capacity to ensure the best efficiency for the UK economy. The goods will keep coming. We need the jobs and the profits to our economy that this can bring to keep coming as well."

FTA member

About FTA

Freight Transport Association represents the transport interests of companies moving goods by road, rail, sea and air. FTA members operate almost half the UK road goods vehicle fleet, and consign over 90 per cent of the freight moved by rail and over 70 per cent by sea or air freight.

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